



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: MT241

Title: Determination of the maximum weight radio transmitter that can be implanted in westslope cutthroat trout without affecting swimming performance: A challenge to the "2% rule"

Focus Categories: Ecology, Methods

Keywords: stamina, westslope cutthroat trout, radio telemetry

Start Date: 03/01/2001

End Date: 02/28/2002

Federal Funds Requested: \$3,343

Non-Federal Matching Funds Requested: \$15,000

Congressional District: at-large

Principal Investigator:

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Abstract

The objective of the study is to determine the maximum weight radio transmitter that can be implanted in 100-g westslope cutthroat trout that will not significantly decrease their swimming performance. Experiments will be conducted in a stamina tunnel built expressly for this study at the Wild Trout Research Laboratory on the Montana State University campus in Bozeman. The fish will be divided into 7 groups of 15 individuals. These groups will include a control group (no surgery, no transmitter), a group on which surgery will be performed but no transmitter will be implanted, and 5 groups surgically implanted (into the peritoneal cavity) with transmitters weighing 1, 2, 3, 4, or 5 g, and 5 groups su-